Preventing hospital admissions: Case management service and diabetes

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Article points

1. The role of the assertive case manager (ACM) – also known as community matron – has been in place for over 5 years.
2. The ACM role works most effectively when working in collaboration with all the specialties and disciplines in both primary and secondary care.
3. The fundamental role of the ACM is to support the individual with complex needs and long-term conditions at home, thus reducing the risk of hospitalisation.

Key words

- Assertive case manager
- Avoiding admissions
- Improving outcomes
- Long-term conditions

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The role of the assertive case manager (ACM) – also known as community matron – has been in place for over 5 years. The original aim of the ACM was to support the care of the person with long-term conditions who had a history of frequent hospital admissions, to prevent readmission to hospital, thereby reducing the cost to the NHS and the distress caused to the individual. In reality, the role of the ACM has since developed beyond preventing hospital admissions to ensuring that high-quality individualised care is given to these people, as well as supporting the development of community and district nursing services within the locality (Department of Health, 2006). In this article, the author discusses her experiences as an ACM and how she prevents admission of people with diabetes to the local acute Trust.

The author is an Assertive Case Manager (ACM) with a special interest in diabetes, working in Birmingham. Her nursing career started in 1987, and after many years working on hospital wards, she spent a few months seconded to the diabetes centre. This placement helped her realise her interest in diabetes nursing care. It also emphasised how devastating diabetes can be to a person's health if it is poorly managed. She then moved on to working in a small, single-handed GP surgery as the practice nurse, not only caring for people with diabetes, but also those with other long-term conditions, all with potentially short- and long-term complications if left uncontrolled.

She remained involved with the diabetes specialist role by helping the local community DSN, which ensured her knowledge and understanding of the condition was kept up-to-date. She then spent some time as a Diabetes Nurse Advisor on the "Intensive Management in Type 2 Diabetes" programme (also known as "Insulin for Life"). This allowed the author to develop skills in the management of diabetes, build close working relationships with local GPs and practice nurses, and with the community and secondary care diabetes teams. The development of this network has supported her with caring for the typical caseload of the ACM.

Since commencing her role as an ACM in 2005, the author has enhanced her

knowledge further with a postgraduate certificate in the care of people with long-term conditions and various other courses highlighted in the *Case Management Competencies Framework for the Care of People with Long Term Conditions* (Department of Health [DH], 2005a). Completion of the independent and supplementary prescribing course has been particularly useful in ensuring timely and appropriate changes in medication, as the condition of individuals with long-term conditions can change very quickly.

The role of the Assertive Case Manager

In 2005, the Government took the lead in setting the Public Service Agreement (DH, 2005b), which set out the expected improved outcomes for people with long-term conditions. This offered a personalised care plan for vulnerable people most at risk, and aimed to reduce the use of emergency bed days by 5% by 2008. This date has now long since gone, with a mixture of positive and negative results depending on the audit results reviewed.

Within NHS Birmingham East & North (BEN), as with many PCTs, there has been constant modifying and development of the ACM role. New ideals and changing requirements are being recognised all the time. The Darzi report, *High Quality Care for All: NHS Next Stage Review Final Report*, (DH, 2008) has further emphasised the increased importance of the vision of a shift from acute care to community care, which has had a significant impact on the need for highly trained nurses working in this advanced healthcare role.

NHS BEN serves a very diverse population, with healthcare professionals working in areas of great wealth and also significant poverty and deprivation, including a large South Asian population with a high prevalence of diabetes. The case management programme has had to expand and adapt to the particular needs of all these groups, and also ensure that a high-quality and equitable service is delivered. Prevention of hospital admissions is important, and there is a recognition that ACMs cannot achieve this as a stand-alone service, and that the nurses need to work with a large range of disciplines and agencies to prevent hospital admissions.

The ACM service works most effectively when working in collaboration with all the specialties and disciplines in both primary and secondary care, using each as a resource to develop each individual's management team. The ACMs employed by NHS BEN work within the district nursing team, using their support for routine care and general management – especially when people enter the palliative and terminal stages of their condition. The district nurses' knowledge in dealing with these situations is extensive, and they liaise closely with the palliative care teams.

The ACMs also work closely with Birmingham Own Health, a telephone support service delivered by specially trained NHS Direct nurses (Birmingham Own Health, 2008). These nurses call people with long-term conditions at agreed frequencies to advise, motivate and monitor those who have an increasing independence but are still in need of comprehensive verbal support and encouragement. This service frees up time for the ACMs to focus on acutely ill individuals, knowing the Birmingham Own Health nursing team will alert them of the deterioration of any individuals under their care.

The ACM requires understanding and respect of each healthcare professional's knowledge and expertise. This is crucial in facilitating an environment in which all parties work together, which is the cornerstone of community care. This provides a better working environment and better practices in coordinating the care of some of the most vulnerable and susceptible individuals in the community.

The ACM's caseload size varies depending on the hours worked, but in recent years there has been an increase from 16 to 20 nurses, each supporting an active caseload of 30–70 individuals with long-term

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conditions, along with anything up to 100 further people being monitored as other services review them.

ACMs work closely with GPs and acute Trust staff, who are always keen to refer people into the ACM service. However, the author's PCT is very eager to ensure that the most appropriate individuals are managed in this way, so it has initiated an email alert system from local hospitals, along with risk calculation tools (UnitedHealth UK, 2004; NHS Modernisation Agency, 2007). These highlight those individuals who are statistically at a higher risk of hospital admission or worsening health. This ensures optimal use of the ACM service.

Other members of the ACM team have come from other specialist and generalist teams. This has resulted in a resource of rich and varied experience and competence the case managers can offer to individuals with long-term conditions.

The treatment plans of people with diabetes who are at risk of hospital admisisons will vary, and often there are many other considerations that need to be taken into account when offering nursing input to people with the condition.

Box 1. Case study 1: Mr B.

History:

- Age: 80 years.
- Diabetes duration: 10 years.
- Diabetes treatment: biphasic isophane insulin (30 units am, 26 units pm), metformin 500 mg twice daily.
- Chronic obstructive pulmonary disease (COPD) duration: 8 years.
- COPD treatment: salbutamol, tiotropium, budesonide plus formoterol fumarate, carbocisteine.

Issues:

- Multiple admissions to hospital with exacerbation of COPD, and frequently requiring prednisolone.
- Reduced appetite and dietary intake due to breathlessness.
- Anxiety due to poor diabetes control, and occasional hypoglycaemia when returning to improved wellness.

Input from the Assertive Case Manager:

- Full holistic assessment, addressing all needs and reviewing the complex issues that were uncovered.
- Support with all the exacerbations, ensuring that Mr B had contact numbers 7 days a week if chest issues occurred.
- Ability to prescribe promptly, reducing the severity of the exacerbation or infection.
- Address issues for diabetes support while having exacerbations, addressing increased insulin needed and titrating rapidly while on steroids.
- Instigating support from nursing teams while Mr B was very poorly, which included monitoring and regular reviews following treatment changes.
- Addressing reduced appetite with appropriate supplement drink, but reducing as health improved to prevent hyperglycaemia.
- Providing help with steroids and diabetes control post-illness by reducing insulin, attenuating the previous problem of hypoglycaemia.

Result:

- Significant reduction in hospitalisation from COPD.
- A significant improvement in HbA_{1c} level.
- Mr B's improved understanding of the connection between diabetes and prednisolone.
- Much more prompt treatment of Mr B's ill health, ensuring better glycaemic control.
- No further hypoglycaemic events and a balanced diet, even when ill.

Chronic obstructive pulmonary disease

A high proportion of the case-managed individuals in NHS BEN have chronic obstructive pulmonary disease (COPD) or other respiratory conditions that require frequent high-dose steroids. A common problem is for these people to be diagnosed with type 2 diabetes as a result of the necessary steroid therapy for COPD. Being diagnosed with another long-term condition can often cause great anxiety and upset, due to their perceived worsening health. As the ACM is often the primary healthcare professional visiting the home it often falls to them to provide first-line education and support in learning to live with diabetes and coming to terms with the diagnosis (see *Box 1* for an example).

The initiation of medication, and good organisation of the team to undertake the necessary tests and investigations, enables the ACM to reduce the risks of acute and long-term complications, both of diabetes and COPD. Diabetes education and support needs to be built up gradually and

reinforced frequently, especially if the person is particularly unwell or hypoxic, as this can make information difficult to grasp (Heaton, 1998). In conjunction with the diabetes risks, cardiovascular risk-factors need addressing, which may be overlooked if the individual is unable to attend their GP surgery.

The effect of diabetes on other long-term conditions

The role of the ACM includes helping to provide a good understanding of diabetes and how it is related to, and impacts on, other long-term conditions. They need to ensure that appropriate referrals are made to specialists, such as dietitians and opticians. Also as important, is to ensure that the GP and practice nurse have a good understanding of what is going on, and have good communication with the whole team.

As the later stages of respiratory conditions or heart failure are largely debilitating, the quality of life for the individual can often be poor. Diabetes often exacerbates these problems. Weight loss, fluid retention and infection causing breathlessness are common problems, and can cause severe weight-loss and lethargy; however, people with diabetes often worry about eating energy-dense foods due to the risk of hyperglycaemia. It is key for the ACM to support the person with the condition with relevant individualised dietary advice regarding this dilemma. Ensuring that blood glucose levels are stable with appropriate prescribing of medication and dietary advice will aid this process. Additionally, the need for the ACM to prescribe frequent steroids can have a marked effect on diabetes control, and close monitoring and titrating of diabetes treatments is needed.

On occasion, community nurses will be required to administer short-term insulin therapy to aid glycaemic control while an individual is receiving steroid treatment, this requires long-term education to support frequent dose adjustment. This is much easier when on insulin, but knowledge and expertise using the local diabetes services is necessary. Prompt and proactive use of non-medical prescribing skills can avoid admissions. This is particularly relevant when steroids are prescribed for an acute respiratory problem, when the ACM can prescribe insulin or alter dose to avoid hyperglycaemia. The ACM liaises with the district nursing team to support insulin therapy if the individual is unable to inject independently.

Some ACMs have a high percentage of individuals of South Asian origin in their caseload, who have extra worries, especially if language barriers are present. It is imperative that the ACM in these areas has

Box 2. Case study 2: Mrs J.

History:
- Age: 80 years.
- Diabetes duration: 39 years.
- Treatment: biphasic insulin aspart (26 units am, 10 units pm).

Issues:
- Multiple admissions to hospital due to diabetic ketoacidosis (DKA), occasional severe hypoglycaemia and fear of hypoglycaemia.
- Being virtually housebound and unmotivated to change lifelong habits resulted in Mrs J failing to attend most appointments.
- Is unwilling to engage with local diabetes team or "very young" GP.

Input from the Assertive Case Manager:
- Support and understanding in the home.
- Reviewing all of Mrs J's health needs, including diabetes, and support with family issues.
- Coordinating diabetes care from the home, reducing the need for, and anxiety of, hospital and GP visits.
- Providing a full and thorough medication review highlighted problematic treatments for Mrs J, and these were stopped or altered as required.
- Change of insulin mixture to help reduce sudden drops in blood glucose levels, and an increase in support from the district nurses.
- Providing a first-line contact for family and nursing staff for emergency and routine care.

Result
- A significant reduction in admission to hospital and a reduction in hypoglycaemia-related call-outs for the ambulance service.
- No further DKA.
- Reduced anxiety due to support and regular contact, and family reassured of support and education.

Page points

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2. Particularly when working with housebound individuals, it makes sense for the ACM to liaise with the GP practice to ensure that the components of the annual diabetes review are monitored and addressed.
3. The fundamental role of the ACM service is to support the individual with complex needs and long-term conditions at home, thus reducing the risk of hospitalisation.

a good knowledge of these issues, such as dietary habits and cultural differences. If the ACM does not, then he or she needs to draw on the services of the local community.

Targets and indicators

With the new General Medical Services contract and the associated Quality and Outcomes Framework (QOF), there is a concern that people with diabetes or other long-term conditions may be considered to be "targets".

The ACM service has a pivotal role in supporting the GP with appropriate care for individuals with long-term conditions, ensuring suitable tests and investigations are undertaken, and that the person is given an individualised care plan to ensure the best health outcome. Individual care plans are particularly important, as tight targets may not be safely achievable or relevant for these vulnerable people with multiple complex needs. For example, if HbA_{1c} or blood pressure targets are set too low, the risk of falls or hypoglycaemia may be much greater than the potential benefits (see *Box 2*).

It is not the role of the ACM to collect or consider QOF points. However, it is the role of the ACM to ensure high-quality care is provided in the home, with the support of the GP surgery or diabetes team as required. Particularly when working with housebound individuals, it makes sense for the ACM to liaise with the GP practice to ensure that the components of the annual diabetes review are monitored and addressed.

Conclusion

The fundamental role of the ACM service is to support the individual with complex needs and long-term conditions at home, thus reducing the risk of hospitalisation. With improvements to the hours of the service, and an increase to a 7-days-a-week service (365 days a year); this has meant real improvements in what can be offered at home.

People know that their ACM is only at the other end of the phone, and a call can generate a visit on the same day. If the usual ACM is unavailable, there will be one or two on-call nurses there to review emergencies. Each on-call nurse is able to provide extended health assessments and prescribe independently, which has ensured a quick and efficient service, and increases the likelihood of keeping people out of the hospital and in their own home. ■

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